



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,873	11/20/2003	Daniel J. Falla	60665B	9382
109	7590	07/12/2006		
THE DOW CHEMICAL COMPANY INTELLECTUAL PROPERTY SECTION P. O. BOX 1967 MIDLAND, MI 48641-1967				EXAMINER KRUER, KEVIN R
				ART UNIT 1773 PAPER NUMBER

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/717,873	FALLA ET AL.	
	Examiner	Art Unit	
	Kevin R. Kruer	1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 26 April 2006.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-13 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.

- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 3-5, 10, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 1087801 (herein referred to as Sheller) in view of Burns (US 5,710,184) for reasons of record.

Sheller teaches a cork gasket having improved coating (page 1, lines 10+). The coating lowers vapor transmission rate of the sealed fluid (page 1, line 25). The cork is coated with an emulsion of an acrylic-modified vinylidene chloride copolymer (page 1, lines 47+). The coating may further comprise a plasticizer in amounts of 1-0 wt% (page 2, lines 30+). Said coating is applied to the entire outer surface (page 1, lines 75+) of a cork (page 1, line 48+). The coating is applied by immersing or spray coating the cork, and drying the cork by heating in an oven (page 1, lines 85+), which is understood to inherently meet the light microscope limitations of claim 1.

With regard to the method limitations of claims 1, 7, 8, and 10 and the solvent of claims 11 and 13, the examiner takes the position that said limitations are method limitations. The courts have held that a method of making a product does not patentably distinguish a claimed product from a product taught in the prior art unless it can be shown that the method of making the product inherently results in a materially different product. In the present application, no such showing has been made. The

solvent is understood to be a method limitation because it is evaporated away in the final product.

Sheller does not teach that the cork should comprise synthetic cork. However, Burns teaches that natural cork suffers with respect to color, drying, shrinkage, crumbling, sticking and cost (col 1, lines 30+). Burns teaches a molded closure comprising a thermoplastic elastomer and a blowing agent that may be used in place of cork (abstract). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the synthetic cork taught in Burns in place of the cork taught in Sheller. The motivation for doing so is that the synthetic cork has improved characteristics with regard to color, dimensional stability, crumbling, and cost.

3. Claims 2 and 9 are rejected under 35 USC 103(a) as being obvious over GB 1087801 (herein referred to as Sheller) in view of Burns (US 5,710,184), as applied to claims 1, 3-5, 10, 11 and 13, and further in view of WO96/28378 (herein referred to as Dewar) for reasons of record.

Sheller in view of Burns is relied upon as above, but does not teach that only one surface of the cork should be coated. However, Dewar teaches a coated cork wherein the coating is applied only to a single face (page 3, lines 1+). Thus, it would have been obvious to only coat a single face of the cork taught by Sheller. The motivation for doing so would have been to reduce cost.

4. Claims 6-8 are rejected under 35 USC 103(a) as being obvious over GB 1087801 (herein referred to as Sheller) in view of Burns (US 5,710,184), as applied to

claims 1, 3-5, 10, 11 and 13, and further in view of Naumovitz et al (US 5,002,989) for reasons of record.

Sheller in view of Burns is relied upon as above, but neither reference teaches that amount of acrylic copolymer that should be incorporated into the vinylidene chloride copolymer. However, Naumovitz teaches a vinylidene chloride copolymer with excellent barrier properties (col 1, lines 5+). Said copolymer comprises 4-10wt% alkyl acrylate (col 1, lines 61+). Said polymers have better processability while maintaining the desirable barrier properties of PVDC (col 7, lines 30+). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a copolymer comprising 4-10wt% alkyl acrylate as the copolymer taught in Sheller. The motivation for doing so would have been that such copolymers have improved processability while maintaining the desired barrier properties.

5. Claim 12 is rejected under 35 USC 103(a) as being obvious over GB 1087801 (herein referred to as Sheller) in view of Burns (US 5,710,184), as applied to claims 1, 3-5, 10, 11 and 13, and further in view of JP49113839A (herein referred to as Nippon) for reasons of record.

Sheller does not teach the coating may comprise a thixotropic agent. However, Nippon teaches that silica is a known thixotropic agent for vinylidene chloride compositions (abstract). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the thixotropic agents taught in Nippon in the composition taught by Sheller. The motivation for doing so is that silica is a known thixotropic agent.

Response to Arguments

Applicant's arguments filed April 26, 2006 have been fully considered but are not persuasive.

Applicant argues the preamble limitation "synthetic cork closure" is intended to structurally limit the shape of the claimed invention. In support of said argument, Applicant points to the disclosure on the top of page 2 of the specification. After reviewing said references, the examiner respectfully disagrees with applicant's contention that the limitation "synthetic cork closure" introduces shape/structure to the claim. In support of said position, the examiner points applicant's attention to US 5,855,287 (which is one of the references incorporated by reference on the top of page 2 of the specification). Said reference teaches the cork may be molded to have any desired shape and size. Thus, the examiner maintains the position "synthetic cork" is a compositional limitation and not a structural limitation. The examiner further notes the specification is not limited to the closures noted in the cited art. The examiner, therefore, disagrees with applicant's notion that the Office ignored structural limitations of the claim when interpreting the phrase "synthetic cork closure." The evidence of record suggests said limitation should be interpreted as a compositional limitation and not a structural limitation. Furthermore, for the reasons noted above, the examiner disagrees with applicant's argument that the examiner dissected the claim to include and exclude alternating words.

Applicant further argues the claim refers back to the "synthetic cork closure" in using the phrase "at least a portion of." The examiner concurs. However, there is no

evidence to support the position that that said phrase demonstrates the phrase "synthetic cork closure" should be limited to closures of a specific style, shape, or size. Any closure will have "at least a portion of" regardless of its size, shape, etc. The examiner has not, as applicant contends, disregarded the preamble. The examiner merely disagrees with applicant's position that the preamble should be interpreted to limit the claims to embodiments of a specific structural type.

Applicant has requested that the Examiner supply data sheets for the Rhoplex R-6 polymer utilized in Sheller. The examiner notes the rejection no longer relies upon the Rhoplex R-6 polymer to read on the claimed copolymer. Thus, the Office at this time sees no need to supply applicant with further technical information of said polymer.

Applicant further argues Sheller teaches it is very important that the gaskets be completely covered. The examiner agrees Sheller teaches both surfaces of the gasket should be coated and notes such an embodiment reads on the claimed invention. The examiner further notes Sheller is properly combinable with Dewar because Dewar teaches the benefit of coating a single side of a gasket. With respect to claim 9, Applicant argues the coating of Dewar would not be on the free end of a closure because applicant argues the "free end" is synonymous with the outer end. The examiner cannot find any support for such a narrow interpretation of the term "free end."

The cited art is not relevant, according to applicant, because Sheller is in a different field of art and addresses a totally different problem. The examiner respectfully disagrees. Sheller and the current application are both drawn to cork materials which are coated with an vapor and/or fluid impermeable coating. Furthermore, both Sheller

and the current application are concerned with the problem of modifying the permeability of a cork gasket. As noted in US 6,235,822, gaskets are understood to read on materials utilized to seal liquid containers (col 1, “field of invention”). The examiner disagrees with applicant’s noted “subject matter” differences for the reasons noted above. Specifically, the claims are not limited to “closures having a corklike shape.” The examiner agrees with the “material” differences noted by applicant but notes synthetic cork and natural cork are in the same field of endeavor. Specifically, synthetic cork has been introduced as an alternative to natural cork materials to overcome some of the deficiencies with natural cork. The examiner respectfully disagrees with applicant’s argument that such substitutions have not been proposed in fields relating to closures of a specific shape. The examiner disagrees with applicant’s noted “environment” difference in that neither the claims nor Sheller are not limited to a particular environment.

Applicant’s arguments on page 8 of the reply with regard to “synthetic cork structure” and “stopper-like shape” of the claimed invention are not persuasive for the reasons noted above.

With respect to Burns, there is no valid motivation for combining its teachings with Sheller because, with the exception of cost, said motivation cited by the examiner is questionable. The examiner respectfully disagrees and maintains the skilled artisan in the gasket art taught by Sheller would have been interested in dimensional stability and resistance to crumbling. Applicant further argues there is no reasonable expectation of success because there is no reason to believe that a coating that sticks

to natural cork would stick on the material of Burns. The examiner respectfully disagrees. The art contains a plethora of examples of coatings being applied to synthetic corks and there is nothing to suggest the coating taught in Sheller would not compatible with synthetic cork.

Applicant argues Sheller is not applicable to the present invention because it relates to cork "placed between confronting faces of adjacent machines" not to corks for liquid containers. The examiner respectfully disagrees and maintains the position that Sheller is not limited to such embodiments. The teachings of Sheller may be utilized in any environment wherein cork gaskets have been used to prevent the passage of vapor and/or fluid. Applicant also argues there is no reasonable expectation of success for the proposed combination. The examiner respectfully disagrees. Synthetic corks have intentionally and specifically been designed to be used as an alternative for natural cork. Thus, the examiner maintains the skilled artisan would have expected a synthetic cork to be suitable for the environment of Sheller (the examiner reiterates the "environment" of Sheller is much broader than Applicant suggests and is not limited to the use of gasket between confronting faces of adjacent machines).

With regards to claim 3, applicant argues the whole gasket of Sheller is coated as opposed to both ends of a cork. The examiner disagrees. Sheller coats two sides of the gasket taught therein utilizing rollers. The examiner further notes the claims are not limited to a "cork-like" closure or any other structural limitation. With regards to claims 10, 11, and 13, Applicant has failed demonstrate said limitations materially affect the finished product. Applicant requests a court citation to support the examiner's shift of

the burden of proof with regards to said limitations. Applicant's attention is directed to *In re Thorpe* in which the court stated, "The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). The examiner believes the cited art appears to be the same or similar to the claimed invention, that the standard for obviousness has been met, and that the shift of burden to the Applicant is proper.

According to applicant, Naumovitz neither teaches nor suggests that said teachings could be applied to solution or emulsion coatings. The examiner notes said reference was not relied upon for such a teaching. Naumovitz is only utilized to select copolymer content, not to dictate the manner in which the copolymer is applied. Said teaching was relied upon to show the skilled artisan would have known how to select the copolymer contents of the copolymer taught in Sheller in order to optimize barrier properties. Applicant argues the polymer taught in Sheller is not a copolymer. The examiner respectfully disagrees. Sheller specifies said polymer is a copolymer (page 2, line 1). Applicant argues the examiner erroneously characterized the copolymers taught in Naumovitz as exhibiting improved processability. Said argument is noted, but the combination is still motivated in order to obtain the desired barrier properties. With regards to claims 7 and 9, the examiner notes said limitations are taught by Sheller.

With regards to Nippon, applicant argues there is no motivation to combine said teachings with the teachings of Sheller. The examiner respectfully disagrees. The

skilled artisan would recognize the need for processing agents such as thixotropic agents when coating a polymer composition. Thus, the examiner maintains the skilled artisan would have been motivated to add silica to the composition in order to improve the polymer's processability. The expectation of success is demonstrated by Nippon. Specifically, Nippon teaches silica will act as a thixotropic agent when utilized with polymers such as those taught in Sheller.

The examiner further maintains the position that the Office has identified the closest prior art and that Applicant has ample evidence to sufficiently reproduce a comparative example.

Conclusion

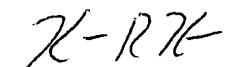
THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R. Kruer whose telephone number is 571-272-1510. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin R. Kruer
Patent Examiner-Art Unit 1773